

CLAIMS

Claims 1-11. (Cancelled)

- 5 12. A method for treating or preventing an autoimmune disease or an autoimmune disorder comprising administering an effective amount of a pharmaceutical composition and/or immune modulator composition comprising a whole cell of a bacterium from one or more of the genera *Rhodococcus*, *Gordonia*, *Nocardia*, *Dietzia*, *Tsukamurella* and *Nocardioidea* to a subject wherein said composition modulates a
- 10 cellular immune response and wherein the autoimmune disease or autoimmune disorder involves inflammation of the intima of a blood vessel.
13. A method for immunizing a subject against an autoimmune disease or an autoimmune disorder comprising administering a pharmaceutical composition and/or
- 15 immune modulator composition comprising a whole cell of a bacterium from one or more of the genera *Rhodococcus*, *Gordonia*, *Nocardia*, *Dietzia*, *Tsukamurella* and *Nocardioidea* and wherein the autoimmune disease or autoimmune disorder involves inflammation of the intima of a blood vessel.
- 20 14. (Cancelled)
15. A method according to claim 12 or claim 13 wherein the autoimmune disease or autoimmune disorder further involves inflammation of the muscular layer of a blood vessel, or of the heart.
- 25 16. A method according to claim 12 or claim 13 wherein the autoimmune disease or autoimmune disorder is one which is preceded by or caused by a vascular disorder.
17. A method according to claim 12 or claim 13 wherein the autoimmune disease or
- 30 autoimmune disorder is selected from one or more of the following: arthritis, particularly rheumatoid arthritis, psoriasis, psoriatic arthropathy, scleroderma,

thyroiditis, post-transplant intimal hyperplasia, graft rejection and vascular disorders.

18. A method according to claim 17 wherein the vascular disorder is a vascular disorder which comprises an autoimmune element.

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19. A method according to claim 17, wherein the vascular disorder is selected from one or more of the following: Raynaud's disease or phenomenon, anterior uveitis, obliterative vascular disorder, atheroma formation (otherwise known as arteriosclerosis), arteritis, myointimal hyperplasia (natural or following angioplasty),
 10 inflammatory and autoimmune thickening of the intima and/or muscular layer of blood vessels, inflammatory blood vessel lesions, atherosclerotic heart disease, reperfusion injury, cardiac conduction disturbances, myocarditis, myocardial infarction.

20. A method according to claim 17 wherein the graft rejection is chronic graft
 15 rejection

21. A method according to claim 19 wherein the graft rejection is chronic graft rejection in the absence of an immunosuppressant.

20 22. A method according to claim 12 or claim 13 wherein said bacterium is selected from one or more of the group consisting of *Gordonia bronchialis*, *Gordonia amarae*, *Gordonia sputi*, *Gordonia terrae*, *Nocardia asteroides*, *Dietzia maris*, *Tsukamurella paurometabola*, *Rhodococcus ruber*, *Rhodococcus rhodnii*, *Rhodococcus coprophilus*, *Rhodococcus opacus*, *Rhodococcus erythropolis*, *Nocardioides albus* and *Tsukamurella*
 25 *inchonensis*.

23. A method according to claim 12 or claim 13 wherein said bacterium is killed.

24. (Cancelled)

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25. (Cancelled)